RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: _08/823,980G_
Source: _1Fw16_
Date Processed by STIC: _12/14/06_

ENTERED

IFW16

RAW SEQUENCE LISTING   DATE: 12/14/2006
PATENT APPLICATION: **US/08/823,980G**   TIME: 14:28:06

Input Set : A:\2300-0938_seq.ST25.txt
Output Set: **N:\CRF4\12142006\H823980G.raw**

```
 3 <110> APPLICANT: Weiner, Amy J
 4         Houghton, Michael
 6 <120> TITLE OF INVENTION: Conserved Motif of Hepatitis C Virus E2/NS1 Region
 8 <130> FILE REFERENCE: PP000938.0105
10 <140> CURRENT APPLICATION NUMBER: 08/823,980G
11 <141> CURRENT FILING DATE: 1997-03-25
13 <150> PRIOR APPLICATION NUMBER: 08/757,958
14 <151> PRIOR FILING DATE: 1996-11-25
16 <150> PRIOR APPLICATION NUMBER: 08/061,699
17 <151> PRIOR FILING DATE: 1993-05-12
19 <160> NUMBER OF SEQ ID NOS: 134
21 <170> SOFTWARE: PatentIn version 3.3
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 6
25 <212> TYPE: PRT
26 <213> ORGANISM: Hepatitis C virus
29 <220> FEATURE:
30 <221> NAME/KEY: VARIANT
31 <222> LOCATION: (1)..(1)
32 <223> OTHER INFORMATION: Represents Ala, Arg, Asp, Gly, Lys, Ser, or Thr.
34 <220> FEATURE:
35 <221> NAME/KEY: VARIANT
36 <222> LOCATION: (2)..(2)
37 <223> OTHER INFORMATION: Represents Ile, Leu, Met, Phe, or Trp.
39 <220> FEATURE:
40 <221> NAME/KEY: VARIANT
41 <222> LOCATION: (3)..(3)
42 <223> OTHER INFORMATION: Represents Leu or Phe.
44 <220> FEATURE:
45 <221> NAME/KEY: misc_feature
46 <222> LOCATION: (4)..(5)
47 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
49 <220> FEATURE:
50 <221> NAME/KEY: VARIANT
51 <222> LOCATION: (6)..(6)
52 <223> OTHER INFORMATION: Represents Ala or Gly.
54 <400> SEQUENCE: 1
```

W--> 56 Xaa Xaa Xaa Xaa Xaa Xaa
```
57 1               5
60 <210> SEQ ID NO: 2
61 <211> LENGTH: 32
62 <212> TYPE: PRT
63 <213> ORGANISM: Hepatitis C virus
```

see p. 6

RAW SEQUENCE LISTING   DATE: 12/14/2006
PATENT APPLICATION: US/08/823,980G   TIME: 14:28:06

Input Set : A:\2300-0938_seq.ST25.txt
Output Set: N:\CRF4\12142006\H823980G.raw

```
 66 <220> FEATURE:
 67 <221> NAME/KEY: MOD_RES
 68 <222> LOCATION: (1)..(1)
 69 <223> OTHER INFORMATION: 2,3-diaminopropionic (Dpr) acetyl cysteine
 71 <220> FEATURE:
 72 <221> NAME/KEY: MOD_RES
 73 <222> LOCATION: (2)..(2)
 74 <223> OTHER INFORMATION: 2-amino heptanoic (Ahe) butyl alanine
 76 <400> SEQUENCE: 2
```
W--> 78 Xaa Xaa Glu Thr His Val Thr Gly Gly Ser Ala Gly His Thr Val Ser
```
 79 1               5                   10                  15
 82 Gly Phe Val Ser Leu Leu Ala Pro Gly Ala Lys Gln Asn Val Gln Leu
 83             20                  25                  30
 86 <210> SEQ ID NO: 3
 87 <211> LENGTH: 5
 88 <212> TYPE: PRT
 89 <213> ORGANISM: Hepatitis C virus
 91 <400> SEQUENCE: 3
 93 Val Ser Leu Leu Ala
 94 1               5
 97 <210> SEQ ID NO: 4
 98 <211> LENGTH: 7
 99 <212> TYPE: PRT
100 <213> ORGANISM: Hepatitis C virus
102 <400> SEQUENCE: 4
104 Ser Leu Leu Ala Pro Gly Ala
105 1               5
108 <210> SEQ ID NO: 5
109 <211> LENGTH: 5
110 <212> TYPE: PRT
111 <213> ORGANISM: Hepatitis C virus
113 <400> SEQUENCE: 5
115 Leu Ala Pro Gly Ala
116 1               5
119 <210> SEQ ID NO: 6
120 <211> LENGTH: 7
121 <212> TYPE: PRT
122 <213> ORGANISM: Hepatitis C virus
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <222> LOCATION: (4)..(5)
128 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
130 <220> FEATURE:
131 <221> NAME/KEY: VARIANT
132 <222> LOCATION: (7)..(7)
133 <223> OTHER INFORMATION: Represents Ala, Pro, or Ser.
135 <400> SEQUENCE: 6
```
W--> 137 Ser Leu Leu Xaa Xaa Gly Xaa
```
138 1               5
```

```
141 <210> SEQ ID NO: 7
142 <211> LENGTH: 7
143 <212> TYPE: PRT
144 <213> ORGANISM: Hepatitis C virus
147 <220> FEATURE:
148 <221> NAME/KEY: misc_feature
149 <222> LOCATION: (4)..(5)
150 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
152 <220> FEATURE:
153 <221> NAME/KEY: VARIANT
154 <222> LOCATION: (7)..(7)
155 <223> OTHER INFORMATION: Represents Ala, Pro, or Ser.
157 <400> SEQUENCE: 7
```

W--> `159 Ser Leu Phe Xaa Xaa Gly Xaa`

```
160 1               5
163 <210> SEQ ID NO: 8
164 <211> LENGTH: 31
165 <212> TYPE: PRT
166 <213> ORGANISM: Hepatitis C virus
169 <220> FEATURE:
170 <221> NAME/KEY: misc_feature
171 <222> LOCATION: (1)..(1)
172 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
174 <220> FEATURE:
175 <221> NAME/KEY: misc_feature
176 <222> LOCATION: (3)..(3)
177 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
179 <220> FEATURE:
180 <221> NAME/KEY: misc_feature
181 <222> LOCATION: (8)..(8)
182 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
184 <220> FEATURE:
185 <221> NAME/KEY: misc_feature
186 <222> LOCATION: (14)..(14)
187 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
189 <220> FEATURE:
190 <221> NAME/KEY: misc_feature
191 <222> LOCATION: (16)..(17)
192 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
194 <220> FEATURE:
195 <221> NAME/KEY: misc_feature
196 <222> LOCATION: (21)..(22)
197 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
199 <220> FEATURE:
200 <221> NAME/KEY: misc_feature
201 <222> LOCATION: (24)..(24)
202 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
204 <220> FEATURE:
205 <221> NAME/KEY: misc_feature
```

```
   206 <222> LOCATION: (27)..(27)       /
   207 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
   209 <400> SEQUENCE: 8
W--> 211 Xaa Thr Xaa Val Thr Gly Gly Xaa Ala Ala Arg Thr Thr Xaa Gly Xaa
   212 1               5                  10                  15
W--> 215 Xaa Ser Leu Phe Xaa Xaa Gly Xaa Ser Gln Xaa Ile Gln Leu Ile
   216              20                  25                  30
   219 <210> SEQ ID NO: 9
   220 <211> LENGTH: 31
   221 <212> TYPE: PRT
   222 <213> ORGANISM: Hepatitis C virus
   224 <400> SEQUENCE: 9
   226 Ala Thr Tyr Ala Thr Gly Ala Ala Gln Gly His Ala Thr Asn Ser Phe
   227 1               5                  10                  15
   230 Val Ser Leu Phe Arg Ser Gly Ala Ser Gln Asn Leu Lys Leu Val
   231              20                  25                  30
   234 <210> SEQ ID NO: 10
   235 <211> LENGTH: 31
   236 <212> TYPE: PRT
   237 <213> ORGANISM: Hepatitis C virus
   239 <400> SEQUENCE: 10
   241 Ser Thr Gln Val Thr Gly Gly Gln Ala Ala His Thr Val Arg Gly Val
   242 1               5                  10                  15
   245 Ala Ser Ile Phe Ser Pro Gly Ser Arg Gln Asp Ile Ser Leu Ile
   246              20                  25                  30
   249 <210> SEQ ID NO: 11
   250 <211> LENGTH: 31
   251 <212> TYPE: PRT
   252 <213> ORGANISM: Hepatitis C virus
   254 <400> SEQUENCE: 11
   256 Ser Thr Arg Val Thr Gly Gly Gln Gln Gly Arg Ala Val His Gly Ile
   257 1               5                  10                  15
   260 Ala Ser Leu Phe Ser Leu Gly Ala Ser Gln Lys Ile Gln Leu Val
   261              20                  25                  30
   264 <210> SEQ ID NO: 12
   265 <211> LENGTH: 31
   266 <212> TYPE: PRT
   267 <213> ORGANISM: Hepatitis C virus
   269 <400> SEQUENCE: 12
   271 Ser Thr His Val Met Gly Ala Gln Gln Gly Arg Val Ala Lys Gly Phe
   272 1               5                  10                  15
   275 Thr Ser Leu Phe Gly Pro Gly Pro Ala Gln Lys Ile Gly Leu Ile
   276              20                  25                  30
   279 <210> SEQ ID NO: 13
   280 <211> LENGTH: 31
   281 <212> TYPE: PRT
   282 <213> ORGANISM: Hepatitis C virus
   284 <400> SEQUENCE: 13
   286 Ser Thr His Val Thr Gly Ala Val Gln Gly His Ser Ile Arg Gly Leu
```

```
287 1              5                 10                15
290 Thr Ser Leu Phe Thr Ser Gly Pro Ala Gln Lys Ile Gln Leu Val
291            20                25                30
294 <210> SEQ ID NO: 14
295 <211> LENGTH: 31
296 <212> TYPE: PRT
297 <213> ORGANISM: Hepatitis C virus
299 <400> SEQUENCE: 14
301 Glu Thr His Val Thr Gly Gly Ile Ala Ala Lys Thr Thr Ala Ser Leu
302 1              5                 10                15
305 Thr Gly Leu Phe Asn Leu Gly Ala Lys Gln Asn Ile Gln Leu Ile
306            20                25                30
309 <210> SEQ ID NO: 15
310 <211> LENGTH: 31
311 <212> TYPE: PRT
312 <213> ORGANISM: Hepatitis C virus
314 <400> SEQUENCE: 15
316 Glu Thr His Val Thr Gly Gly Asn Ala Gly Arg Ala Ala Ala Gly Ile
317 1              5                 10                15
320 Ala Gly Leu Phe Thr Leu Gly Ala Lys Gln Asn Val Gln Leu Ile
321            20                25                30
324 <210> SEQ ID NO: 16
325 <211> LENGTH: 31
326 <212> TYPE: PRT
327 <213> ORGANISM: Hepatitis C virus
329 <400> SEQUENCE: 16
331 Gln Thr Arg Val Thr Gly Gly Thr Ala Ala Gln Ser Thr Ala Arg Ile
332 1              5                 10                15
335 Ala Gly Leu Phe Ser Leu Gly Ala Arg Gln Asn Ile Gln Leu Ile
336            20                25                30
339 <210> SEQ ID NO: 17
340 <211> LENGTH: 31
341 <212> TYPE: PRT
342 <213> ORGANISM: Hepatitis C virus
344 <400> SEQUENCE: 17
346 Gln Thr His Val Met Gly Gly Thr Ala Gly Arg Asn Ala Tyr Gly Leu
347 1              5                 10                15
350 Thr Ser Phe Leu Ser Val Gly Ala Ser Gln Lys Ile Gln Leu Ile
351            20                25                30
354 <210> SEQ ID NO: 18
355 <211> LENGTH: 31
356 <212> TYPE: PRT
357 <213> ORGANISM: Hepatitis C virus
359 <400> SEQUENCE: 18
361 Glu Thr His Val Met Gly Gly Ala Ala Ser Ser Thr Thr Tyr Arg Phe
362 1              5                 10                15
365 Ala Ser Leu Phe Thr Ser Gly Pro Ala Gln Lys Ile Gln Leu Val
366            20                25                30
369 <210> SEQ ID NO: 19
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 12/14/2006
PATENT APPLICATION: US/08/823,980G   TIME: 14:28:07

Input Set : **A:\2300-0938_seq.ST25.txt**
Output Set: **N:\CRF4\12142006\H823980G.raw**

FYI

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,5,6
Seq#:2; Xaa Pos. 1,2
Seq#:6; Xaa Pos. 4,5,7
Seq#:7; Xaa Pos. 4,5,7
Seq#:8; Xaa Pos. 1,3,8,14,16,17,21,22,24,27
Seq#:133; Xaa Pos. 1
Seq#:134; Xaa Pos. 4,5

VERIFICATION SUMMARY   DATE: 12/14/2006

PATENT APPLICATION: **US/08/823,980G**   TIME: 14:28:07

Input Set : **A:\2300-0938_seq.ST25.txt**
Output Set: **N:\CRF4\12142006\H823980G.raw**

```
L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:78 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16
L:2092 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133 after pos.:0
L:2113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:0
```